

WE CLAIM:

1. An Automatic Call Distribution (ACD) controller arranged to be coupled through a packet-based network to a plurality of remote telephone stations and one or more attendant telephone stations, the ACD controller comprising call reception logic that controls the establishment of telephone sessions between the remote telephone stations and the attendant telephone stations;

wherein the call reception logic operates to receive call initiation signals from a particular one of the remote telephone stations; to monitor if an attendant availability parameter is met; if the attendant availability parameter is not met, to send at least one data information message to the particular remote telephone station via the packet-based network; and, if the attendant availability parameter is met, to establish an audio channel between the particular remote telephone station and a particular one of the attendant telephone stations.

2. An ACD controller according to claim 1, wherein the call reception logic further operates to query the capabilities of the particular remote telephone station prior to sending the data information message, a format for the data information message being determined based upon the capabilities of the particular remote telephone station.

3. An ACD controller according to claim 1, wherein the packet-based network is an Internet Protocol (IP) network and the data information message is transmitted within an IP packet.

4. An ACD controller according to claim 1, wherein the call reception logic further operates to determine a waiting parameter to be presented to a user at the particular remote telephone station, the data information message comprising said waiting parameter.

5. An ACD controller according to claim 4, wherein the waiting parameter comprises a number corresponding to an order in which the call initiation signals were received from the particular remote telephone station with respect to other call initiation signals received from other ones of the remote telephone stations.

6. An ACD controller according to claim 4, wherein the waiting parameter comprises an estimate of the time before the attendant availability parameter will be met.

7. An ACD controller according to claim 4, wherein the call reception logic further operates to update the waiting parameter periodically until the attendant availability parameter is met and to send further data information signals comprising updated waiting parameters to the particular remote telephone station via the packet-based network until the attendant availability parameter is met.

8. An ACD controller according to claim 1, wherein the data information message comprises an alert request option; and wherein the call reception logic further operates to monitor for receipt of an alert request activation message from

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the particular remote telephone station in response to the alert request option; and, if the call reception logic receives the alert request activation message from the particular remote telephone station, to send an alert on message to the particular remote telephone station when the attendant availability parameter is met.

9. An ACD controller according to claim 8, wherein the call reception logic further operates to periodically determine a waiting parameter prior to the attendant availability parameter being met and to periodically send a data information message comprising said waiting parameter to the particular remote telephone station.

10. An ACD controller according to claim 8, wherein the call reception logic further operates to send an alert mode indication to the particular remote telephone station if the call reception logic receives the alert request activation message from the particular remote telephone station.

11. An ACD controller according to claim 10, wherein the alert mode indication is an alert mode icon to be displayed on the display of the particular remote telephone station.

12. An ACD controller according to claim 8, wherein the alert on message comprises a ring request for the particular remote telephone station.

13. An ACD controller according to claim 12, wherein the ring request comprises a volume request to ensure a ring volume

selection corresponding to the particular remote telephone station is at a sufficiently high level.

14. An ACD controller according to claim 8, wherein the alert on message comprises an email message being sent to an email account corresponding to the particular remote telephone station.

15. An ACD controller according to claim 8, wherein the alert request option comprises a text string to be displayed on a display screen associated with the particular remote telephone station, the text string indicating to a user of the particular remote telephone station how to send an alert request activation message to the call reception logic.

16. An ACD controller according to claim 1, wherein the the data information message comprises a plurality of audio options; and

wherein the call reception logic further operates to monitor for receipt of one of a plurality of audio option activation messages from the particular remote telephone station, each of the audio option activation messages corresponding to a selection of a particular one of the audio options; and, if the call reception logic receives one of the audio option activation messages from the particular remote telephone station, to send audio signals associated with the received audio option activation message to the particular remote telephone station.

17. An ACD controller according to claim 16, wherein each of the audio options comprises a text string to be displayed on a display screen associated with the particular remote telephone station, each of the text strings indicating to a user of the particular remote telephone station how to send an audio option activation message corresponding to the particular audio option to the call reception logic.

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10 18. An ACD controller according to claim 1, wherein the data information message comprises a browser request option; and

wherein the call reception logic further operates to monitor for receipt of a browser request activation message from the particular remote telephone station in response to the browser request option; and, if the call reception logic receives a browser request activation message from the particular remote telephone station, to initiate a browser session with the particular remote telephone station such that the particular remote telephone station can access data information within a browser format.

19. An ACD controller according to claim 18, wherein the browser format is a web page.

20. An ACD controller according to claim 18, wherein, if a browser session is initiated with the particular remote telephone station, the call reception logic further operates to send an alert message to the particular remote telephone station when the attendant availability parameter is met.

21. An ACD controller according to claim 18, wherein, if a browser session is initiated with the particular remote telephone station, the call reception logic further operates to send at least a portion of the data information accessed by the particular remote telephone station during the browser session to the particular attendant telephone station when establishing the audio channel between the particular remote telephone station and the particular attendant telephone station.

22. An ACD controller according to claim 18, wherein, if a browser session is initiated with the particular remote telephone station, the call reception logic further operates to initiate a browser session with the particular attendant telephone station when establishing the audio channel between the particular remote telephone station and the particular attendant telephone station, the browser session being identical to that initiated with the particular remote telephone station.

23. An ACD controller according to claim 18, wherein the browser request option comprises a text string to be displayed on a display screen associated with the particular remote telephone station, the text string indicating to a user of the particular remote telephone station how to send a browser request activation message to the call reception logic.

24. An Automatic Call Distribution (ACD) controller arranged to be coupled through a packet-based network to a plurality of remote telephone stations and one or more attendant telephone stations, the ACD controller comprising

call reception logic that controls the establishment of telephone sessions between the remote telephone stations and the attendant telephone stations;

wherein the call reception logic operates to receive
5 call initiation signals from a particular one of the remote telephone stations; to initiate a browser session with the particular remote telephone station such that the particular remote telephone station can access data information within a browser format; to monitor for receipt of an attendant request
10 message being sent from the particular remote telephone station; and, if an attendant request message is received, to monitor if an attendant availability parameter is met and, if the attendant availability parameter is met, to establish an audio channel between the particular remote telephone station
15 and a particular one of the attendant telephone stations.

25. An Automatic Call Distribution (ACD) system comprising an ACD controller and one or more attendant telephone stations arranged to be coupled to the ACD controller, each of the ACD controller and the attendant
20 telephone stations arranged to be coupled through a packet-based network to a plurality of remote telephone stations, the ACD controller comprising call reception logic that controls the establishment of telephone sessions between the remote
25 telephone stations and the attendant telephone stations;

wherein the call reception logic operates to receive call initiation signals from a particular one of the remote telephone stations; to monitor if an attendant availability parameter is met; if the attendant availability parameter is
30 not met, to send at least one data information message to the

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particular remote telephone station via the packet-based network; and, if the attendant availability parameter is met, to establish an audio channel between the particular remote telephone station and a particular one of the attendant

5 telephone stations.

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26. An ACD system according to claim 25 further comprising a Local Area Network (LAN) arranged to be coupled to the packet-based network, each of the attendant telephone

10 stations being coupled through the LAN to the ACD controller.

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~~27.~~ A telephone system comprising a packet-based network, an Automatic Call Distribution (ACD) controller, one or more attendant telephone stations, and one or more remote telephone

15 stations, each of the attendant telephone stations and remote telephone stations being arranged to be coupled through a packet-based network to ACD controller, the ACD controller comprising call reception logic that controls the establishment of telephone sessions between the remote telephone stations and

20 the attendant telephone stations;

wherein the call reception logic operates to receive call initiation signals from a particular one of the remote telephone stations; to monitor if an attendant availability parameter is met; if the attendant availability parameter is

25 not met, to send at least one data information message to the particular remote telephone station via the packet-based network; and, if the attendant availability parameter is met, to establish an audio channel between the particular remote telephone station and a particular one of the attendant

30 telephone stations.

28. A telephone network according to claim 27, wherein the remote telephone station is a wireless telephone station that is coupled to the packet-based network via a communication link with a base station that is further coupled to the packet-based network.

29. Within an Automatic Call Distribution (ACD) controller, a method of establishing a telephone session between a remote telephone station and an attendant telephone station via a packet-based network, the method comprising:

- receiving call initiation signals from the remote telephone station;
- sending at least one data information message to the remote telephone station via the packet-based network;
- monitoring if an attendant availability parameter is met;
- if the attendant availability parameter is not met, sending at least one data information message to the particular remote telephone station via the packet-based network; and
- if the attendant availability parameter is met, to establish an audio channel between the particular remote telephone station and a particular one of the attendant telephone stations.

30. A switching device arranged to be coupled through a telephone network to at least one remote telephone station and an Automatic Call Distribution (ACD) system comprising at least one attendant telephone station, the switching device comprising alert request logic that is operable when the remote

telephone station is connected to the ACD system through the switching device;

wherein the alert request logic operates to monitor for receipt of an alert request activation signal; and, if the alert request activation signal is received, to store a directory number corresponding to the remote telephone station, to disconnect the remote telephone station from the switching device, to monitor for an attendant ready signal from the ACD system and, if the attendant ready signal is received, to initiate a telephone session with the remote telephone station using the stored directory number in order to connect the remote telephone station and the ACD system.

31. A switching device according to claim 30, wherein the alert request activation signal is a sequence of Dual Tone Multi-Frequency (DTMF) signals.

32. A switching device according to claim 30, wherein, in order for the alert request logic to monitor for receipt of an attendant ready signal, the alert request logic further operates to periodically send a recorded voice message to the ACD system indicating how to send an attendant ready signal to the alert request logic.

33. A switching device according to claim 30, wherein the attendant ready signal comprises a ring back signal that is generated when a telephone call is transferred.

34. Within a computing device coupled to a telephone network, a method of alerting a telephone station that an

attendant within an Automatic Call Distribution (ACD) system is ready for a telephone session, the telephone station being within a telephone session with the ACD system through the computing device, the method comprising:

5 monitoring for receipt of an alert request activation signal; and

 if the alert request activation signal is received, storing a directory number corresponding to the remote telephone station; disconnecting the telephone station from the computing device; monitoring for an attendant ready signal from the ACD system; and, if the attendant ready signal is received, initiating a telephone session with the telephone station using the stored directory number in order to connect the telephone station and the ACD system.

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35. A telephone station arranged to be coupled through a telephone network to an Automatic Call Distribution (ACD) system comprising at least one attendant telephone station, the telephone station comprising alert request logic that is operable when the telephone station is connected to the ACD system;

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 wherein the alert request logic operates to monitor for receipt of an alert request activation signal; and, if the alert request activation signal is received, to periodically send a recorded voice message to the ACD system indicating how to send an attendant ready signal to the alert request logic, to monitor for an attendant ready signal from the ACD system and, if the attendant ready signal is received, to initiate a alert operation on the telephone station.

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